# Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

In August of the same year, "A lady in Roxbury" (Mass.) presented a small collection of flowering-plants and grasses. In 1856, Mrs. Isaac Clements, of Mechanicsville, Saratoga Co., N. Y., presented a collection of native plants, for which she was awarded the Society's Silver Medal

In 1864, the daughter of Dennis Murray (then deceased, but a former member of the Society, a frequent exhibitor of native plants and an excellent botanist) presented a collection of one hundred and twenty-five species of native flowering-plants, collected near Boston; eighty species of vascular cryptogams from America and Great Britain; and sixty species of native and introduced grasses. There is also a collection of thirty species of native and garden-plants from an unknown source.

In June, 1875, Mr. George E. Davenport presented the collection of American ferns now everywhere known as the "Davenport Herbarium." At present writing there remain no actual *desiderata* except root-specimens of *Cheilanthes leucopoda* and *Pellaea aspera*, and native specimens of *Pellaea ternifolia* and *Adiantum tricholepis;* but these are deficiencies that cannot remain long unsupplied if we consider how many ferns, long regarded as rare and difficult to obtain, have been placed within the reach of all through the exertions of recent collectors. The collection now contains over 600 mounted sheets representing 31 genera, 149 species as here recognized (or 151 by Prof. Eaton's Fern List), and some twenty-two or twenty-three hundred specimens. Many sheets of other vascular cryptogams have been mounted and are nearly ready to add to the herbarium.

Besides these collections, there is a small one of ferns from Pulney Hills, Southern India, presented in 1878 or '79 by Mrs. Van Brunt.

Boston, Feb. 1881. G. E. D.

§ 26. **A Silene with Pentamerous Ovary.**—The symmetry in the flower of the genus *Silene* is destroyed by the suppression of two carpels in the gynoecium (sepals 5, petals 5, stamens 2x5, pistils 3). In a specimen of *Silene Pennsylvanica*, Michx. I have detected a well-developed ovary formed of *five* carpels, which, had they been permitted to ripen, would certainly have opened by ten teeth. This pod shows, if nothing else, how closely *Silene* and *Lychnis* are related; so closely, in fact, that if such a case as this were of frequent occurrence there would be little left to distinguish the two genera.

Hoboken, Feb., 1881. JOSEPH SCHRENK.

§ 27. **The Preparation of Fleshy Pileate Fungi for the Herbarium.***—For all preparations of fungi, with the exception of those of spores, I use, as a supporting material, paper coated with gelatine, and which I shall call "gelatine-paper." This is prepared by dissolving one part of gelatine, broken in small pieces, in five parts of boiling-hot water, in the following manner: A deep porcelain dish is placed on the top of a vessel of boiling water in such a way that the bottom of the dish is kept constantly immersed in the latter. The proper quantity of boiling water is then poured into the dish, and the gelatine is introduced by degrees and stirred about until the last portion is completely dissolved. While the dish is still resting on the vessel of hot water, very stout writing-paper is coated by means of a brush with the warm solution of gelatine and allowed to dry. The solution must be spread over the paper as thickly as possible. With a solution of one ounce of gelatine in five ounces of water I generally coat 34 quarto sheets of writing-paper. A stock of this paper is kept constantly on hand so as to have it in readiness when it is desired to prepare fungi for the herbarium. To use the gelatine-paper both surfaces of one of the quarto sheets are moistened, and the sheet, with its prepared side up, is laid on a flat dish which has been previously made wet. The gelatine very quickly swells up by reason of the imbibed moisture and is then in a condition to adhere to the likewise moist, prepared fungus-sections. The paper being ready for the reception of the specimen, the latter is prepared as follows: With a sharp, thin knife a vertical section is made down through the toadstool so as to divide it into two equal portions. Next, from the inner portion of one of the halves a thin vertical slice is removed and laid upon the moist gelatine-paper. Then another specimen is taken, its stipe is cut off close to the pileus, and the latter, as well as the stipe, is divided vertically into two parts. Then, by means of a sharp knife with a curved blade, the greater portion of the fleshy substance is removed from the under side of the divided pileus so as to leave but a very thin layer, and the two portions thus treated are laid, this side downward, upon the gelatine-paper. The two halves of the stipe are prepared in the same way. For the sake of economy the preparations are laid closely side by side upon the paper, and when the sheet has been filled it is ready for the press. The prepared sheet is then underlaid and overlaid with six or eight sheets of bibulous white paper, and on the top of the whole is placed a piece of board, which is loaded with a weight of about 55 pounds. For pressing, I always employ a weight and never a press. The pressure of the former is continuous, while a screw-press does not act upon an object which shrinks greatly in drying. I have found that for the majority of fungus-preparations the weight already stated (55 pounds) is most suitable. At the end of 24 hours the driers are to be changed. On carefully removing the under dryer from the surface of the preparations these will be found already fast adherent to the gelatine-paper, although the free portions of the latter do not stick to the dryer. After substituting dry sheets of paper for the damp ones, the whole is submitted to pressure as before. After three or four changes, and also at the end of the same number of days, the prepations will be thoroughly dry. Fungi which contain a large amount of moisture would better be changed the first time at the end of twelve hours. Preparations made on successive days, must, when placed under the same press, be separated from each other by thick card-board, so that partially or nearly dry specimens may not absorb moisture from the fresher material. The pileus-preparations of some fungi may be affixed to the gelatine-paper without the intervention of pressure. The method of procedure in this case I shall describe farther on. Owing to the quick adherence to the gelatine-paper of these preparations made from the living individual they cannot in the least contract on drying. For this reason they retain a nearly unaltered external form; and, as the gelatine as here employed is like jelly, it does not penetrate the preparation and so the latter keeps its color. In the manufacture of the gelatine-paper a very stout kind of writing-paper must be employed, since thin paper is powerless to prevent the wrinkling up of many preparations—it contracts along with them and becomes crumpled and folded.

---

*G. Herpell in *Verhandl. des naturhistorisch. Vereins der preuss. Rheinlande u. Westfalens*, 1880.

I omit the author's preliminary remarks on collecting fungi, and will merely state that he recommends that none but good characteristic specimens should be taken, and that these should be as perfect as possible—snail and worm-eaten and water-soaked individuals being rejected.—W. R. G.

The preparations thus dried on the gelatine-paper are finally cut out with a pair of scissors and affixed to card-board with gum arabic in the following manner. First the stipe is gummed down and over its upper extremity is placed one of the pileus-sections, so that the preparation exhibits a profile-view of the fungus. By the side of this is gummed one of the vertical sections. Owing to the paper being gelatinized the gum arabic cannot come in contact with the preparation and thus affect its color.*

These two preparations—the vertical and profile views—along with the spore-preparation (to which I shall devote a special chapter), exhibit the most prominent characters of a species. In the vertical section is to be seen the thickness and color of the flesh of the pileus; the diameter of the stipe from base to apex; whether the stipe is continuous with the substance of the pileus or separable therefrom, and whether it is hollow, or stuffed, or solid. Furthermore, in the sections of lamellate species are to be seen the width and mode of insertion of the gills and the character of their edges; and, in those of species of *Boletus* and *Hydnum*, the length, diameter, etc. of the pores and spines. The profile view exhibits the size, form and the external nature, such as color, markings and investiture, of the whole fungus. The spore-preparations possess the natural color of the spores and give likewise an exact negative copy of the under surface of the pileus.

§ 28. **Some Fungi from New Mexico.**—A small package of fung recently sent me from New Mexico, by Mr. H. H. Rusby, included the following species: *Polyporus nitens*, Fr. (imperfect, but apparently this species); *Podaxon carcinomalis*, Fr.; *Geaster hygrometricus*, Pers.; *Scleroderma Geaster*, Fr.; and an undescribed *Æcidium*, which may be named

ÆCIDIUM RUSBYI, *n. sp.*—Peridia elongated, slender, cylindrical, white, rosy at the base; mouths surrounded by fringe-like teeth; spores deep orange-yellow. Seated, mostly in parallel series, along the midrib on the under surface of leaves of *Fendlera rupicola*. Spermogonia in circinnating clusters on a thickened purplish-brown subiculum. W. R. GERARD.

---

*The author has referred, in his prefatory remarks, to the injurious effects exerted on the colors of fungi by allowing the specimens to come in direct contact with mucilage of gum arabic, the bright red color of such a species as *Agaricus muscarius*, for instance, being quickly changed thereby to a dirty reddish-yellow.